Application No. 10/648,592 Attorney Docket No. 50325-0750 Filed August 25, 2003

## AMENDMENTS TO THE CLAIMS

- (Currently amended) In an application server communicatively coupled to a layer-2
  gateway device, the layer-2 gateway device and a user device having established
  therebetween a communications session that supports a first quality of service level,
  a[[A]] method for managing the[[a]] communications session with established between
  the layer-2 gateway device and the user[[a]] device, the method comprising the
  computer-implemented steps of:
  - establishing, with the device, a communications session that supports a first quality of service-level;
  - receiving, at an application server, a request[[,]] forwarded by associated with the layer-2 gateway device[[,]] that originated from the user device;
  - <u>wherein the request is a request</u> for a <u>particular application</u> service provided by the application server;
  - determining, at the application server, based upon the request for the <u>particular</u>

    <u>application</u> service and policy criteria, a second quality of service level to be supported by the communications session for the device; and
  - sending a message to the layer-2 gateway device that specifies a quality of service profile for the second quality of service level to be supported by the communications session;
  - wherein the step of sending a message causes the layer-2 gateway device to make modifying the communications session by causing a layer-2 change in a communications link used for the communications session[[,]] so that the communications session for the device-supports the second quality of service level instead of the first quality of service level; and
  - receiving an acknowledgement from the layer-2 gateway device that indicates that a layer-2 change was made in a communications link used for the communications session, including signaling by the application server to change the communications session with the device to support the second quality of service level.
- (Canceled)

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(Currently amended) The method as recited in Claim 1, wherein the step of sending a
message to the layer-2 gateway device causes a modification of session context data
maintained by the layer-2 gateway device and associated with the communications
session.

wherein causing a layer 2 change in a communications link used for the communications session, so that the communications session for the device supports the second quality of service level, includes causing the modification of session context data at a layer 2 gateway.

- (Currently amended) The method as recited in Claim 1, <u>further comprising:</u>
   sending to the <u>layer-2 gateway device an Authentication</u>, <u>Authorization</u>, and <u>Accounting Change of Authorization (CoA) message that specifies a quality of service profile for the second quality of service level</u>.
  - wherein causing a layer 2 change in a communications link used for the communications session, so that the communications session for the device supports the second quality of service level, includes generating and sending to a layer 2 gateway an Authentication, Authorization, and Accounting Change of Authorization (CoA) Request command that specifies a quality of service profile for the second quality of service level.
- (Currently amended) The method as recited in Claim 1, wherein the first and second
  quality of service levels each specifies an amount of bandwidth to be allocated to the <u>user</u>
  device.
- (Currently amended) The method as recited in Claim 1, wherein the <u>user</u> device is a wireless device.
- (Canceled)
- (Currently amended) An <u>application server apparatus capable of being communicatively coupled to a layer-2 gateway device, the layer 2 gateway device and a user device having established therebetween a communications session that supports a first quality of service level, for managing a communications session with a device, the <u>application server</u> apparatus-being configured to:
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establish, with the device, a communications session that supports a first quality of service level:

- receive, at an application server, a request[[,]] forwarded by associated with the layer-2 gateway device[[,]] that originated from the user device;
- wherein the request is a request for a particular application service provided by the application server;
- determine, at the application server; based upon the request for the service and policy criteria, a second quality of service level to be supported by the communications session for the device; and
- send a message to the layer-2 gateway device that specifies a quality of service profile for the second quality of service level to be supported by the communications session thereby causing the layer-2 gateway device to make modify the communications session by causing-a layer-2 change in a communications link used for the communications session[[,]] so that the communications session for the device supports the second quality of service level instead of the first quality of service level; and
- receive an acknowledgement from the layer-2 gateway device that indicates that a layer-2 change was made in a communications link used for the communications session, including signaling by the application server to change the communications session with the device to support the second quality of service level.

## 9. (Canceled)

- 10. (Currently amended) The <u>application server apparatus</u>-as recited in Claim 8, wherein the <u>application server apparatus</u>-is further configured to <u>send a message to the layer 2</u> gateway device that specifies a quality of service profile for the second quality of service <u>level thereby causing the layer-2 gateway device to modify eause the modification of session context data <u>maintained by the at-a-layer-2 gateway device and associated with the communications session.</u></u>
- (Currently amended) The <u>application server apparatus</u>-as recited in Claim 8, wherein the <u>application server</u> apparatus is further configured to generate and send to <u>the[[a]]</u> layer-2 gateway device an Authentication, Authorization, and Accounting Change of

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Authorization (CoA) message Request command-that specifies a quality of service profile for the second quality of service level.

- (Currently amended) The <u>application server apparatus</u>-as recited in Claim 8, wherein the
  first and second quality of service levels each specifies an amount of bandwidth to be
  allocated to the user device.
- (Currently amended) The <u>application server apparatus</u>-as recited in Claim 8, wherein the user device is a wireless device.
- (Canceled)
- 15. (Currently amended) An <u>application server capable of being communicatively coupled to a layer-2 gateway device</u>, the layer-2 gateway device and a user device having <u>established therebetween a communications session that supports a first quality of service level</u>, apparatus for managing a communications session with a device, the <u>application server apparatus</u>-comprising:
  - means for establishing, with the device, a communications session that supports a first
    quality of service level:
  - means for receiving, at an application server, a request[[,]] forwarded by associated with the layer-2 gateway device[[,]] that originated from the user device;
  - wherein the request is a request for a particular application service provided by the application server;
  - means for determining, at the application server; based upon the request for the <u>particular application</u> service and policy criteria, a second quality of service level to be supported by the communications session for the device; and
  - means for sending a message to the layer-2 gateway device that specifies a quality of service profile for the second quality of service level to be supported by the communications session;
  - wherein the means for sending a message is operable to cause the layer-2 device gateway to make means for modifying the communications session by causing a layer-2 change in a communications link used for the communications session[[,]] so that the communications session for the device supports the second quality of service level instead of the first quality of service level; and

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means for receiving an acknowledgement from the layer-2 gateway device that indicates that a layer-2 change was made in a communications link used for the communications session, including signaling by the application server to change the communications session with the device to support the second quality of service level.

## (Canceled)

- 17. (Currently amended) The application server apparatus as recited in Claim 15, wherein the means for sending a message apparatus further comprises means for sending a message to the layer-2 gateway device that specifies a quality of service profile for the second quality of service level thereby causing the layer-2 gateway device to modify eausing the modification of session context data maintained by the at a layer-2 gateway device and associated with the communications session.
- 18. (Currently amended) The <u>application server</u> apparatus-as recited in Claim 15, wherein the <u>application server</u> apparatus-further comprises means for generating and sending to <u>the[[a]]</u> layer-2 gateway an Authentication, Authorization, and Accounting Change of Authorization (CoA) <u>message Request command</u>-that specifies a quality of service profile for the second quality of service level.
- 19. (Currently amended) The <u>application server apparatus</u>-as recited in Claim 18, wherein the <u>application server apparatus</u>-further comprises means for specifying the quality of service profile for the second quality of service level using a vendor-specific attribute containing the 3<sup>rd</sup> Generation Partnership Project 3GPP-Negotiated-QoS attribute.
- (Currently amended) The apparatus as recited in Claim 15, wherein the first and second
  quality of service levels each specifies an amount of bandwidth to be allocated to the <u>user</u>
  device.
- (Currently amended) The apparatus as recited in Claim 15, wherein the <u>user\_device</u> is a wireless device.
- (Canceled)